

XXIV SIMSI INTERNATIONAL CONGRESS ITALIAN DIVING AND HYPERBARIC MEDICAL SOCIETY

ONLINE CONGRESS - December 15th, 2020

*President: Prof. Vincenzo Lionetti
Chairman of the Scientific Program: Dr. Pasquale Longobardi*

14.00-14.30 Welcome and introductory presentation

14.30-17.50 Session 1 | New frontiers for hyperbaric medicine

Chairman: V. Lionetti (PI, ITA),

Moderators: G. Bosco (PD, ITA), E. Camporesi (Tampa, US), P. Longobardi (RA, ITA)

- 14.30 Biomedicine of extraordinary environments - from the abyss to Space Physiology
A. Gemignani (PI, ITA)
- 14.50 Chemoceptive sensitivity: a new therapeutic target
C. Passino (PI, ITA)
- 15.10 Mitochondrion as a stress signals decoder
C. Giorgi (FE, ITA)
- 15.30 CHYMAERA and the Clinical Trials Registries. Towards the hyperbaric medicine consortium
V. Zanon (BS, ITA)
- 15.50 Clinical-therapeutic recommendations on aseptic osteonecrosis
E. Romanini (RM, ITA)
- 16.10 Impaired oxygen delivery to the brain and age-related cognitive decline
Z. Ungvari (Oklahoma, US)
- 16.30 Tissue repair, what's new?
T. Serena (Boston, US)
- 16.50 Oxygenation in the critically ill patient
D. S. Martin OBE (London, UK)
- 17.10 Metabolic aspects of diving
G. Bosco (PD, ITA)
- 17.30 Respiratory training as a complementary approach to cardiorespiratory pathologies
Pingitore (PI, ITA)

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17.50-18.50 Work Break - Virtual Classrooms

17.50-18.20

"The ear during diving activity and in hyperbaric environment"

With the contribution of Lofarma

Moderators: A. Bolognini, F. Silvestri

18.20-18.50

"The physical therapy"

With the contribution of Fremslife

Moderators: F. Fontana, M. Gallamini, C. Petrilli

18.50 – 20.00 Session 2 | T Hyperbaric technology and the role of professionals

Chairman: M. Grigioni (RM, ITA)

Moderators: R. Bedini (PI, ITA), M. Laurino (PI, ITA)

- 18.50 Diving and hyperbaric activities. The regulatory framework
E. Rossi (PI, ITA)
- 19.10 Standards and guidelines on medical and hyperbaric devices
M. Grigioni (RM, ITA)
- 19.30 Which is the right oxygen dose as a substrate and inducer of biological signals?
C. Balestra (Bruxelles, BE)
- 19.50 The Physical Agents Portal: prevention and protection in hyperbaric atmosphere
G. Di Stefano (RM, ITA)
- 20.00 **Closing Remarks**

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ONLINE CONGRESS - December 16th, 2020

*President: Prof. Vincenzo Lionetti
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15.00-16.00 Session 3 | Oxygen as a trasduction signal in biological processes

Moderators: A. Cellerino (PI, ITA), P. Pinton (FE, ITA)

- 15.00 HBOT in osteonecrosis: phenotypic alterations and bone turnover control
G. Vezzani (PR, ITA)
- 15.20 Oxygen in the mitochondrial pathophysiology of the ischemic heart
G. Morciano (RA, ITA)
- 15.40 Genetic polymorphisms associated with pathologies of interest for diving and hyperbaric medicine
A. Ravaei (FE, ITA)

16.00-17.00 Work Break - Virtual Classrooms

16.00-16.30

"Arginine and bioinducers, prolife messengers"

With the contribution of Farmadamor

Moderators: F. Di Donato, B. Maglione, C. Schiraldi

16.30-17.00

"Topic approach for infection and pain control"

With the contribution of Sofar

Moderators: K. Hoxha, P. Longobardi, S. Puddu, G. Vincenzi

17.00-20.20 Session 4 | Tissue repair

Chairman: M. Romanelli (PI, ITA)

Moderators: P. Longobardi (RA, ITA), E. Ricci (TO, ITA)

- 17.00 Patient and specialist synergy: the key to success
A. Scalise (AN, ITA)
- 17.20 How to reduce avoidable amputations for diabetic foot?
D. A. Armstrong (Los Angeles, US)

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- 17.40 Multidisciplinary approach of diabetic foot
A. Piaggese (PI, ITA)
- 18.00 The Italian experience in tissue repair
E. Ricci (TO, ITA)
- 18.20 Biosensors to monitor tissue repair
M. Romanelli (PI, ITA)
- 18.40 Bioinductors in regenerative medicine
C. Schiraldi (NA, ITA)
- 19.00 Tissue engineering and regenerative medicine
E. Bondioli (FC, ITA), D. Melandri (FC, ITA)
- 19.20 Hyperbaric oxygen therapy in accordance with TIMERS approach.
K. Hoxha (RA, ITA)
- 19.40 The economic perspective in the management of tissue repair. The impact of different oxygen administration techniques
G. Turchetti (PI, ITA)
- 20.00 **Lectio Magistralis**
What do we know about optimal decompression from deep dives?
S. Mitchell (Auckland, NZ)
- 20.20 **Closing Remarks**

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ONLINE CONGRESS - December 17th, 2020

*President: Prof. Vincenzo Lionetti
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15.00-16.00 Session 5 | Military diving

Chairman: Admiral Inspector R. Guarducci (RM, ITA)

Moderators: Admiral M. Barbierato (RM, ITA), M. Brauzzi (GR, ITA), V. Lionetti (PI, ITA)

- 15.00 Diving research projects: goals and perspectives
C.F. G. Meloni (MMI, SP, ITA)
- 15.20 Cardiac arrest management in hyperbaric environment.
C.C. E. Giannarzia (MMI, TA, ITA)
- 15.40 Use of the pulse oximeter during diving with rebreather in order to detect hypoxia
T.V. F. Di Pumpo (MMI, SP, ITA)

16.00-18.00 Session 6 | Focus on nutrition, ageing and oxygen

Chairman: M. Laurino (PI, ITA)

Moderators: F. Faralli (SP, ITA), V. Longo (PI, ITA)

- 16.00 Cardio-cognitive deterioration due to diving activity and oxygen: how to defend yourself with a correct nutrition
V. Lionetti (PI, ITA)
- 16.20 Ketosis, oxygen toxicity and diving
G. Bosco (PD, ITA), A. Paoli (PD, ITA)
- 17.20 Low-dose cytokines and neurotrophins in inflammatory risk factors control
M. Fioranelli (RM, ITA)
- 17.40 Lifestyle to prevent diving accidents
A. Fiorito (MS, ITA)

18.00-18.50 Work Break - Virtual Classrooms

18.00-18.30

“Diving safety: from professional to recreational”

With the contribution of CNS International - Cemis

Moderator: A. Fiorito

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18.50-20.50 Session 7 | Oncology and radiotherapy, a new frontier for oxygen hyperbaric therapy

Chairman: P. Longobardi (RA, ITA)

Moderators: D. Musio (PI, ITA), L. Santarella (BO, ITA)

- 18.50 HBOT in neoplastic inflammation. Inflammacard to select responsive patients
C. Giorgi (FE, ITA)
- 19.10 Inflammaging: biological model for the study of the neoplastic process
M. Bonafè (FC, ITA)
- 19.30 Molecular effects of HBOT in association with radiotherapy in a patient-derived preclinical model of glioblastoma
A. Tesei (FC, ITA)
- 19.50 HBOT research project and Radiotherapy in Glioblastoma
D. Arpa (FC, ITA)
- 20.10 HBOT in liver transplant: 12 years of experience
L. Maffi (TO)
- 20.30 Take Home Message
G. Bosco (PD, ITA), V. Lionetti (PI, ITA), P. Longobardi (RA, ITA)
- 20.50 **Closing Remarks**